

Presents

International Automotive CAE Conference

ROAD TO VIRTUAL WORLD

Accelerate Digital Transformation Through Simulation





12th October 2023 | Hotel Crowne Plaza, Gurugram

Key Highlights



First of its kind CAE Conference in India

280+ Delegates from 70+ Organizations

12 Keynotes by experts from around the world

Panel Discussion by industry leaders

Technology Expo by Market leaders

Coverage by Top Media Houses





Speakers & Panelists



Dr. Tapan Sahoo Executive Director - MSIL Chairman – SAENIS



Dr. P. Priyadarshi Group Director VSSC - ISRO



Kaushik Madhavan Vice President MarketsandMarkets



Bruno Carré CTO Sujan Continental



Dr. Sujith Nair Vice President CEAT Ltd.



Renuka Srinivasan Director Dassault Systemes India



Pardeep Kathuria

Pardeep Kathuria DGM - MSIL Convenor - RVW



Jonathan Darab Director GCAPS



Enric Aramburu Product Manager Applus IDIADA



Syam Sunder Vice President Hexagon India



Andreas Kiesel HOCC IAMT Engineering



Anirudha Joshi General Manager ESTECO



Dr. Tapan Sahoo Executive Director - MSIL Chairman – SAENIS



Dr. P. Priyadarshi Group Director Sr. VSSC - ISRO



Renji Issac Sr. Vice President CEAT Ltd.

Dr. Nagesh Poojary Business Advisor IPG Automotive



Vishwanath Rao Managing Director Altair Engineering India



Prashant Rao Director MathWorks India



Prof. R. Krishna Kumar

Institute Professor

IIT Madras



Mandip Tack Managing Director IDIADA India

Sumantra Barooah Consulting Editor ETAuto



PANELISTS

SPEAKERS

Sponsors, Expositions & Media Partners

MEDIA









Delegates



Summary

Inaugural

The Conference was inaugurated by **Dr. Tapan Sahoo** (Chairman - SAENIS and Executive Director - Maruti Suzuki). Dr. Sahoo explained the evolution of the mobility world and megatrends shaping society and mobility. He then addressed the factors that drive the global EV market, increasing consumerism and India's need for 'Safe Mobility'.

Dr. Pankaj Priyadarshi, Group Director of VSSC – ISRO. He mentioned how the success of the Chandrayaan-3 mission required all the trajectory mathematics undergoing extensive simulation, thus becoming the anchor for most hypotheses.

"X-in-the-loop Validation & testing for new aggregates will be leveraged by Mobility stakeholders with the overall objective of bridging the gap between virtual and real-time testing to shorten product development and time-tomarket schedules," said **Mr. Kaushik Madhavan**, VP, MarketsandMarkets.



Keynote 1

"Megatrend shift from ICE to EV vehicles poses new challenges to NVH solutions providers who work with Rubber based Components. Simulation Tools enable consequently to define best Part Design with quick convergence and new raising Digital Technologies such as Artificial Intelligence will even make convergence faster," said **Mr. Bruno Carré**, CTC, Sujan Contitech.

"Computational methods such as Multiscale Modeling offer a very comprehensive approach to investigate materials at different time scales. Our two case studies utilizing all-atom MD simulations for tyre applications match well with experimental findings: one focuses on polymer blend compatibility which is quantified by the Flory Huggins's χ -parameter, and the other examines air permeability in rubber by measuring the diffusion co-efficient of air molecules," said **Dr. Sujith Nair**, Vice President, CEAT Ltd.



Keynote 2

Ms. Renuka Srinivasan, Director, Dassault Systemes India focused on need for improved efficiency in product development processes, given the shorter timelines that product development teams face. She also mentioned ModSIM approach which helps in improving efficiency, innovation & collaboration.

The IDIADA presentation by **Mr. Enric Aramburu**, Product Manager, Applus IDIADA, pinpointed the possibility of replacing FE simulations with AI methods to calculate, for example, aerodynamic forces in real time.

"Vehicle simulation in conjunction with high fidelity virtual tire models are used to develop tire specifications. The process enable earlier tire specification prediction balancing between rolling resistance and grip. Method can also be used to diagnose vehicle model sensitivities to improve fidelity," said **Mr. Jonathan Darab**, Director, GCAPS.



RVW

Keynote 3

"A proof of concept by ESTECO uses real scenarios, simulation, and multiobjective optimization with modeFRONTIER to identify dangerous situations, including edge cases," said **Mr. Anirudha Joshi**, General Manager, ESTECO, focussing on ADAS.

Mr. Andreas Kiesel, Head of IAMT Competence center said that Careful validation of the simplified fatigue tests using image recognition systems leads to improved development.

Cognitive Engineering Evolution (CEE), uses simulation to predict product performance and manufacturing process improvements through AI," said **Mr. Syam Sunder**, VP, Hexagon, India.

Prof R Krishnakumar, IIT Chennai talked about vehicle dynamics and conversion of subjective parameters to objective values. As solutions to this, he said "Digital human body models" will play instrumental role in coming future.



Panel Discussion

Dr. Tapan Sahoo kicked off the panel discussion on accelerating digital transformation through simulation moderated by ETAuto's Consulting Editor **Sumantra Bibhuti Barooah**.

Mr. Vishwanath Rao, MD, Altair India focused on electrification and sustainability," said.

Dr. Nagesh Poojary, Business Advisor, IPG Automotive said that India's progress in ADAS is closely tied to legislation and safety regulations.

Mr. Prashant Rao, Director, MathWorks India discussed about Model-based system architecture.

Mr. Renji Issac, Sr. VP, CEAT Ltd. talked about simulation, statistical tools & AI models for first time right products.

Mr. Mandip Tack, MD, IDIADA India talked about testing in a virtual world using driving simulators.



Media Coverage

ET Aut® The Most Trusted News & Knowledge Platform



Megatrends in the evolution of society shape mobility and auto industry

In his Inaugural address at SAE India's 'Road to Virtual World' conference 2023, Tapan Sahoo, Executive Director - Maruti Suzuki India Ltd. and Chairman - SAENIS, discussed the evolution of the mobility world and the societal megatrends of climate change and environmental degradation.

ET Aut® The Most Trusted News & Knowledge Platform



Road to virtual world: Accelerating digital transformation through simulation

The dependence on virtual validation and simulation is going to be extremely critical for automotive development, especially for edge cases.

4 Oct · Q

Sponsored | Want to learn more about Accelerating Digital Transformation Through Simulation? Look no further as we bring to you the top pioneers i... See more







SAE's Conference Looks At Digital Transformation Through Simulation

The SAE Northern India Section (SAE NIS) conference on simulation saw auto industry leaders ind various stakeholders come together to discuss how digital transformation could be ccelerated with shrinking times to market.

r Bureau		
All India's Road To Vetual World conference (and expo with statis of periodipation comparies that Subject Content AVS and concretely Test Systems) held on October 2023 put the spotlight on colessing digital transformation cough simulation by bringing under a not many expens, actual industry dates and other tableholders.	trajectory mathematics during the Chardinysan-3 mission. Stating that I has become the archor for most hypotheses, he added, "The electric version industry would barrefit from understratering how crucial simulation is as areo-thermodynamic challenges increase."	comply with OEMs specifications for dynamic stiffnesses. "Simulation tools enable to define best part design with quick convergence, whereas new ming digital technologies such as artificial inteligence will even make convergence faster," he esplained.
	Potential Kauzhi Machanan, Vice President, Marketanardidarkets, sad that Xin- fine-loop visitiden and testing for new aggregates will be leveraged by mobility tabachiden with the overall objective to bridge the gap between yorkut and mail intre betting to shorten product development and time-to- market schedules.	Baing the vehicle performance and methods, which input the two in set of methods, which input the two in the effecting. D Set of the two inter- ted frames, D Set of the two inter- ted frames, D Set of the two inter- ted the set of the set of the two inter- ent disections and a constraint is cooling and times consuming to compare the notify setteriors. In constraint models exerting to compare the notify setteriors to compare the setteriors and a multitude setterior and the setterior and based and the setterior and the setterior and based and the setterior and the setterior and based and the setterior and the setterior and a multitude setterior and the setterior and a setterior and the setterior and the setterior
garised by the SAE Northern India ction (SAE NS), the conference – anded by over 280 delegates, 70 perilations with 12 keynotes assistons experts from across the globe – vess first of its kind CAE conference in fat.		
his insugural speech. Dr Sipars hoo, Chairman, SAII. Mill and coutre Director, Manuf Suzaki viter, said that the key sociatel againends induct elimate angainwhivromentel degradation, mographic bench, mold animation, digital technologies and prinkdite class. He emphasized factors during the global EV dubt borosation.	In terprote session one, Bruno Carré, CTC, Sujen Conflact, exemal Part for at Non CE is SUp pose new challenges to XMH solutions providers and/or soluti with ruban based components. He reformed that conferent direkeped declared aimutation tools and procedures feet aimutation tools and procedures feet aimutations and aimutations and define them it demons and aimut to	



INTERNATIONAL AUTOMOTIVE CAE CONFERENCE – ROAD TO VIRTUAL WORLD

nternational Automotive CAE Conference "Road to

Virtual World" concluded on 12th October 2023 at

Crowne Plaza, Gurgaon. The daylong conference organized by SAENIS was graced by the International CAE

community, Automotive OEMs, Space agency, Component

Manufacturers, Technology Partners, Consulting Firms,

Academic Institutions and Media Houses.

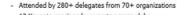
Few highlights of the conferences were:

- First of its kind CAE conference in India

MOBILITY ENGINEERING

RVW





12 Keynote sessions by experts across globe
 Panel discussion by industry stalwarts

- Panel discussion by industry stawards
 Exposition on innovative technologies and solutions
- Coverage by top media houses
 Inaugural Session



DIADA

The Conference was inaugurated by Dr. Tapan Sahoo (Chairman - SAENIS and Executive Director Maruti Suzuki) along with other dignitaries from industry and academia.

In his Inaugural address, Dr. Sahoo explained the evolution of the mobility world and megatrends shaping society and mobility. He mentioned key societal Megatrends which includes Climate change/Environmental Degradation, Demographic trends, Rapid Urbanization, Digital Technologies and Rising middle class. He then addressed the factors that drive the global EV market, increasing consumerism and India's need for 'Safe Mobility'. He concluded by discussing advantages of Simulation over physical prototyping and how simulation is the key to addressing future development challenges.





RVW Conference Highlights The Importance Of Simulation Testing



12 Oct 2023 07:04 PM 3 Min Read

Deliberations from across the industry zeroed in that virtual simulations can cope with the fast-paced development of vehicles, components and materials.



Whether designing a tiny spring bush in the suspension of an electric city runabout or plotting the trajectory of a satellite launch vehicle, simulation testing has become the bedrock of technology development. This message emerged from the SAE India-Northern India Section organised the International Automotive CAE Conference – Road to Virtual World', which focused on accelerating digital transformation through simulation. With a versatile set of speakers from across the mobility industry, the message is clear: extensive utilisation of simulation development is fast-tracking the technology enhancement across every segment.

Simulation Testing In The Mobility Industry

The Government introduces many schemes to incentivise

Some Glimpses



Some Glimpses



RVW Provided Great Opportunities To:



Sponsors & Exhibitors

- Brand Visibility
- Networking & Partnerships
- Business Opportunities
- Approachability
- Technology demonstration
- Product or Service Promotion
- Build Credibility in Customers
- Direct Feedback from Audience







- Awareness on latest research & trends
- Exposure to new technologies
- Listen to top industry leaders
- Opportunity to meet researchers & leaders

- Networking & Business Opportunities
- Develop Leadership Skills
- Inspiration



JOURNEY CONTINUES

See you at RVW 2024